Claims

1. Separating device for isolating at least one component from a sample of biological origin, in particular nucleic acids from whole blood, comprising a liquid-permeable separating element, having pores in particular, arranged in a vessel, characterised in that the vessel has an at least virtually gas-impermeable connecting element at one of its end regions for connecting the vessel to another vessel or has a connecting device for another vessel, e.g. a blood-sampling tube.

2. Device according to claim 1, characterised in that the vessel has a connecting element at both end regions.

3. Device according to claim 1 or 2, characterised in that the connecting element is a piercable, self-closing septum.

4. Device according to claim 3, characterised in that the septum is retained in a screw cap.

5. Device according to one of the preceding claims, characterised in that the connecting element has a closure element, .g. a tap.

6. Device according to one of the preceding claims, characterised in that the connecting element has a device for penetrating a septum, e.g. a cannula.

7. Device according to one of the preceding claims, characterised in that the con-

necting element has a fixing element, e.g. a snap-fit closure, for the other vessel or the connecting device.

8. Device according to one of the preceding claims, characterised in that the separating element is selected from a group consisting of filters, silicate membranes, ion-exchanger membranes and columns or separating columns.

9. Device according to one of the preceding claims, characterised in that the separating element is arranged in a receptacle that can be placed in the vessel.

10. Device according to one of the preceding claims, characterised in that the receptacle has at least two openings, a lip being arranged in the region of one opening which extends at least partially around the circumference of the receptacle.

11. Device according to claim 10, characterised in that an external diameter of the lip corresponds at least approximately to a maximum external diameter of the vessel.

12. Device according to one of the preceding claims, characterised in that the separating element is removably arranged in the vessel.

13. Device according to one of the preceding claims, characterised in that an annular groove is provided on an internal face of the vessel for fixing the separating element or the receptacle, e.g. the lip.

14. Device according to one of the preceding claims, characterised in that the vessel

has a lip, in particular annular, on its internal face for retaining the separating element or the receptacle.

15. Device according to one of the preceding claims, characterised in that the vessel has a cross section widening in the direction of a longitudinal central axis and this cross section widening forms an annular bearing surface for the separating element.

16. Device according to one of the preceding claims, characterised in that the receptacle is secured to the screw cap, in particular removably.

17. Device according to one of the preceding claims, characterised in that a stationary phase for at least one additional component is disposed in the receptacle.

18. Device according to one of the preceding claims, characterised in that the vessel is evacuated and/or can be evacuated.

19. Device according to one of the preceding claims, characterised in that the vacuum is such that a predeterminable quantity of the sample can be sucked into the vessel.

20. Device according to one of the preceding claims, characterised in that the vessel is provided in the form of a blood-sampling tube.

21. Device according to one of the preceding claims, characterised in that an extraction device is provided on the receptacle which is able to engage with an extraction tool, e.g. tweezers.

22. Device according to one of the preceding claims, characterised in that the extraction device is provided in the form of an annular groove in the interior wall of the receptacle or a projection from the interior wall of the receptacle pointing in the direction of the longitudinal central axis or an orifice or a metal element.

23. Kit for isolating at least one component from a sample of biological origin, in particular nucleic acids from whole blood, comprising a separating device according to one of the preceding claims and a connecting device for providing an at least more or less gas-impermeable connection between the separating device and another vessel as well as the other vessel.

24. Kit according to claim 23, characterised in that the connecting device has at least one device for penetrating a septum to establish a flow connection between the separating device and the other vessel.

25. Kit according to claim 23 or 24, characterised in that the penetrating device is a cannula, which is double-ended in particular.

26. Kit according to one of claims 23 to 25, characterised in that the connecting device is provided in the form of a vessel.

27. Kit according to claim 26, characterised in that the cannula is retained in an end region of the vessel.

28. Kit according to one of claims 23 to 27, characterised in that at least one cannula

end has a safety feature.

29. Kit according to one of claims 23 to 28, characterised in that the connecting device has a closure element, e.g. a tap, for interrupting the flow connection.

30. Kit according to one of claims 23 to 29, characterised in that a fixing element, e.g. a snap-fit closure, for the vessel or vessels is provided in at least one end region of the connecting device.

31. Kit according to one of claims 23 to 30, characterised in that the other vessel is a blood-sampling tube.

32. Kit according to one of claims 23 to 31, characterised in that a reagent or a reagent mixture is placed in the other vessel to stabilise and/or lyse whole blood.

33. Kit according to claim 32, characterised in that the reagent or reagent mixture is a guanidinium salt.

34. Method of isolating at least one component from a sample of biological origin, in particular nucleic acids from whole blood, whereby the sample is collected in a first, in particular evacuated, vessel where the sample or component is stabilised, characterised in that at least a part of the stabilised sample is transferred to a second, in particular evacuated, vessel by establishing a flow connection between the vessels, the component being collected on a separating element.

35. Method according to claim 34, characterised in that the second vessel is a separating device according to one of claims 1 to 22.

36. Method according to claim 34 or 35, characterised in that when the component has been separated from the sample, the separating element is removed from the vessel.

37. Method according to claim 36, characterised in that the separating element is transferred to another vessel, where the component is washed and/or eluted from the separating device.

38. Method according to claim 34 or 35, characterised in that the sample element separated from the component is removed from the second vessel and the component in the second vessel is washed with a buffer solution.

39. Method according to one of claims 34 to 38, characterised in that the second vessel is evacuated prior to a washing step.

40. Method according to one of claims 34 to 38, characterised in that the buffer solution is transferred from the second vessel into another vessel in flow connection with this vessel by above-atmospheric pressure.

41. Use of the separating device according to one of claims 1 to 22 for separating at least a nucleic acid from whole blood.

42. Use of the kit according to one of claims 23 to 33 for separating at least a nucleic acid from whole blood.